

Patent Claims:

1. A three-dimensionally shaped flat cable comprising a laminate which includes at least one conductor track enclosed between two insulation layers, and at least one support layer, which are connected to one another via an adhesive layer, the laminate being applied to a positive die and shaped by applying heat, radiation and/or pressure and fixed in its three-dimensional shape by cooling to below the glass transition temperature T_g of the adhesive layer or by hardening the adhesive layer.
2. The flat cable as recited in Claim 1,
characterized in that the support layer is made of a metal foil or a plastic sheet.
3. The flat cable as recited in Claim 1,
characterized in that the support layer is a porous layer.
4. The flat cable as recited in one of Claims 1 through 3,
characterized in that the adhesive layer is composed of a thermoplastic adhesive, an adhesive foil and/or an adhesive-bonded nonwoven having a melting point T_m of <180°C and/or a latent reactive adhesive having a cross-linking temperature of <140°C.
5. The flat cable as recited in Claim 2 or 3,
characterized in that an additional porous layer is provided for covering.
6. The flat cable as recited in Claim 5,
characterized in that the porous layer is made of a nonwoven or a fabric of polymer fibers.
7. The flat cable as recited in one of Claims 1 through 6,
characterized in that the flat cable is at least partially back-coated using a thermoplastic.

8. The flat cable as recited in one of Claims 1 through 7,
characterized in that the conductors of the conductor track are exposed at least in partial sections
of their surface prior to lamination for forming contact fields.

9. The flat cable as recited in one of Claims 1 through 8,
characterized in that the flat cable is fitted with electronic components.

10. A method for manufacturing a dimensionally stable flat cable as recited in one of Claims 1
through 9,

characterized in that the laminate, comprising flat cable, adhesive, and support layers, or all
components for the laminate separately, is/are applied to a positive die, adjusted at room
temperature, and shaped by applying heat, radiation and/or pressure and fixed in its shape by
cooling to below the glass transition temperature T_g of the adhesive layer or by hardening the
adhesive layer.

11. The method as recited in Claim 10,
characterized in that, for equalizing the temperature, a metal foil is used during the laminating
process and/or in the die.

12. The method as recited in Claim 10 or 11,
characterized in that the laminate parts, fixed in their shape, are installed in a separate step or are
back-coated in an injection molding process using a thermoplastic.